

REMARKS

No claims have been amended, added or cancelled. Therefore, claims 1-19 remain pending in the application. Reconsideration of the present case is earnestly requested in light of the following remarks.

Section 102(e) Rejection:

The Examiner rejected claims 1-4, 6, and 18-19 under 35 U.S.C. § 102(e) as being anticipated by Aultman (U.S. Publication 2005/0021869). Applicant respectfully traverses this rejection for at least the following reasons.

Regarding claim 1, contrary to the Examiner's assertion, Aultman fails to teach or suggest *a storage area network (SAN), comprising: one or more host servers, wherein one of the host servers comprises a backup server; a plurality of storage devices; a SAN fabric comprising one or more fabric devices configured to couple the one or more host servers to the plurality of storage devices; wherein one or more of the host servers are configured to store primary data on one or more of the storage devices, and wherein backup data of the primary data is stored on one or more of the storage devices; wherein one or more of the storage devices comprise one or more archival storage devices, and wherein the backup server is configured to initiate a server-free backup through the SAN fabric of said backup data to one or more of the archival storage devices.*

Applicant's claim 1 refers to three types of data: primary data, backup data, and archive data (backup data backed up to an archival storage device). Applicant's claim 1 also recites that the backup server, the storage devices storing primary data, the storage devices storing backup data, and the archival storage devices are all part of the same storage area network (SAN) and are coupled to each other through the same SAN fabric. The Examiner's citations in Aultman, including FIG. 12, with elements 30, 34, 36, 39, 63, 66, 90, 118, 120, 128, and paragraph [0101], clearly do not teach or suggest these limitations of Applicant's claim 1. For example, FIG. 12 depicts master server 36 outside

the SAN, communicating with NBU media servers 128 through LAN 71. Aultman's master server 36 is not part of the SAN in Aultman. Therefore, master server 36 cannot be equated with a backup server of the SAN configured to initiate server-free backups of backup data to archival storage devices through the SAN fabric, as the Examiner contends.

Furthermore, FIG. 12 does not depict a SAN that comprises a plurality of storage devices for backup data and does not illustrate any data paths between any storage devices (including disk storage array 66) and tape library 34 that do not pass through one of the media servers 128. The SAN shown in Aultman's FIG. 12 does not include a plurality of storage devices that store three different types of data: primary data, backup data of the primary data, and archival data from the backup data. Furthermore, while FIG. 12 and paragraph 101 describe, "Server-Free based system 63 comprises one or more NBU media servers 128, for example, with Gigabit (GigE) network backup connectivity", they do not describe how any server-free backups are performed by system 63, much less any server-free backups as an archival of backup data of primary data. For example, while paragraph [0101] describes NBU media servers 128 providing fiber channel connectivity to tape backup library 34 to backup project's servers (primary data), it does not describe that the data is transferred to the tape backup library for these backups without passing through media server 128, nor that master server 36 initiates the backups, as the Examiner contends. There is no description in Aultman of a server-free archival of backup data. In fact, paragraph [0101] itself appears to teach away from the Examiner's interpretation when it states, "The NBU media servers 128, 130 also provide fiber channel connectivity to the tape backup library 34 and performs the backup to the fiber channel tape drives of the tape backup library 34. The NBU media servers 128, 130 also are configured to back up project's servers."

Further regarding claim 1, Aultman clearly does not describe the limitation *a server-free backup through the SAN fabric of said backup data to one or more of the archival storage devices*. Aultman does not describe a server-free archival of backup data to one or more archival storage devices through a SAN fabric, as recited in

Applicant's claim 1. Instead, only backups of primary data, such as project data, are described. Moreover, Aultman does not state primary data, backup data and archival data are all stored on a plurality of storage devices of the SAN. The Examiner refers to SAN Switch 90 in Aultman, but Tapè Drives 34 are the only storage devices connected to SAN Switch 90 in Aultman.

In the Response to Arguments section of the instant Office Action, the Examiner asserts, "there is only one type of data and applicant's claim simply refers to different copies of that data stored in a primary storage area, a backup storage area, and an archival storage area". The Examiner is incorrect. The claim clearly and explicitly recites that the backup data is from the primary data, and the backup server is configured to initiate a serverfree backup through the SAN fabric of the backup data to one or more archival storage devices. Thus, the backup data is derived from the primary data, and the archival data is derived from the backup data. As argued above, that Aultman fails to disclose this data relationship as recited in claim 1; in particular, Aultman nowhere teaches the serverfree backup of the backup data to one or more archival storage devices as recited in the claims. In the instant Office Action, the Examiner incorrectly assumes that the data are all the same and does not provide any explanation from Aultman which teaches the specific relationships described in the claims. As argued above, Aultman fails to teach this configuration, relationship, or the primary, backup, and archival data recited in the claims.

Additionally, the Examiner asserts, "throughout the remarks, applicant argues that the SAN of Aultman et al. does not store these 'three types' of data because the backup and archive storage are not 'part of the SAN'". The Examiner goes on to state that the Examiner interprets the entirety of the EBR network as the SAN which is connected via the TCP/IP. However, the Examiner's interpretation does not match the descriptions provided by Aultman. For example, Figure 6 clearly illustrates that the LAN network, the Application servers, and the master backup server 36 are not part of the SAN which is outlined as a cloud in the Figure. Clearly, Aultman does not describe the entire EBR network as the SAN as asserted by the Examiner. The Examiner cannot alter the clear

teachings of the reference to suit his own purpose. Furthermore, as noted above, many of the elements in Figure 12 are not coupled to the SAN switch 90, which the Examiner relies on as the SAN fabric of claim 1. More specifically, even were the SAN to include the entirety of the EBR network, which Applicants argue it clearly does not, the cited storage elements are not coupled to the SAN fabric (of which the Examiner cites SAN switch 90) as required in the claims (a SAN fabric...configured to couple the one or more host servers to the plurality of storage devices). For example, the Examiner relies on the master backup server 36 to teach the backup server configured to initiate the server free backup; however, this is not depicted as being coupled to the SAN Switch 90 or as included in the SAN (see Figure 6). Additionally, Aultman nowhere describes that the tape library 34 is an archival storage device which can execute a server free backup with the consolidated storage 66 as recited in the claims (and as argued above). Thus, the master backup server 36 is not in the SAN nor described as being coupled to the SAN switch 90. Applicants note that the Examiner also cites the server-less system 63 (which is not a storage component) as teaching the backup server that initiates the serverfree backup. As argued above, Aultman nowhere teaches the serverfree backup of the backup data to archival storage devices. Furthermore, Aultman nowhere describes the NBU server 128 as a backup server which performs the backup recited in the claims.

Additionally, Applicants note that the boundary of the SAN is but one of the many points brought against the Aultman rejection. In particular, Applicants note that the Examiner fails to address any of the other arguments already presented. For example, Applicants have argued that Aultman fails to teach an archival storage device (much less one that undergoes a serverfree backup through the SAN fabric of the backup data as recited in the claims); instead, Aultman only describes backing up data from primary servers. Additionally, Applicants argue that Aultman actually teaches away from the serverfree backup as recited in the claims. **The Examiner has failed to address these arguments.**

As the Examiner is no doubt aware, anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention,

arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The **identical** invention must be shown in as complete detail as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). As discussed above, Aultman clearly fails to teach or suggest a storage area network (SAN), comprising: ... a backup server; a plurality of storage devices; ... wherein backup data of the primary data is stored on one or more of the storage devices; ... one or more archival storage devices, and wherein the backup server is configured to initiate a server-free backup through the SAN fabric of said backup data to one or more of the archival storage devices. Therefore, Aultman cannot be said to anticipate claim 1.

For at least the reasons above, the rejection of claim 1 is not supported by the cited art and removal thereof is respectfully requested.

Claim 18 includes limitations similar to claim 1, and so the arguments presented above similarly apply to this claim, as well. Further in regard to claim 18, Aultman does not describe a backup server configured to initiate a third party copy (3PC) to produce the archival data from backup data. Moreover, the Examiner has not indicated what element in Aultman corresponds to the means for copying backup data through the SAN fabric to the one or more archival storage devices in response to the backup server initiating a third party copy, as recited in claim 18. Applicant asserts that no such means is described in Aultman. **The Examiner has yet to respond to this argument.**

Section 103(a) Rejections:

The Examiner rejected claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Aultman in view of Tamer (U.S. Patent 6,035,412), and claims 7-17 as being unpatentable over Aultman as applied to claim 1 above, in view of Tamer. Applicant traverses these rejections for at least the following reasons.

Regarding claim 7, contrary to the Examiner's assertion, Aultman in view of Tamer fails to teach or suggest all the limitations of this claim. The Examiner contends that Aultman discloses *a method comprising: identifying backup data to be copied to an archive storage, wherein the backup data is a backup of primary data in a storage area network (SAN)*, in FIG. 12. However, as discussed above regarding claim 1, FIG. 12 and its supporting description do not describe that data stored in Aultman's tape is a backup of primary data in a storage area network (SAN).

The Examiner states, "Since the mirroring of the enterprise takes places, data to be copied must be identified, a SAN is used to connect the various servers." Aultman describes a master server 36 which may include 3 disk drives configured as follows, "Drive 1 is for Boot/OS/Swap/NetBackup/NetWorker Binaries, and Drives 2 and 3 are for NetBackup/NetWorker Indexes/Database for mirroring between trays" (see, e.g., paragraph [0068]). However, as one of ordinary skill in the art would recognize, mirroring data, which would typically involve writing data to two different drives whenever data is written, is not the same as backing up data. Furthermore, there is nothing in Aultman that teaches or suggests identifying mirrored data (which the Examiner incorrectly equates with backup data) to be copied to archive storage. As discussed above regarding claim 1, Aultman does not teach or suggest archiving backup data, as recited in Applicant's claims.

The Examiner admits that Aultman does not disclose the process by which archiving occurs and relies on Tamer to disclose the method. However, contrary to the Examiner's assertion, Tamer also does not teach or suggest server-free archiving of backup data in a SAN as recited by Applicant's claim 7. The Examiner cites Tamer as disclosing freezing the backup data to prevent the backup data from being altered, in column 2, lines 14-19. However, this citation does not describe freezing backup data, but instead describes mirror splitting as part of a backup of primary data. That is, in Tamer, primary data is mirrored during normal operation and then this mirroring of primary data is split when generating a backup of the primary data. There is nothing in Tamer that teaches or suggests freezing backup data.

Further regarding claim 7, the Examiner asserts that Aultman in view of Tamer teaches *while the backup data is frozen, performing a server-free copy through the SAN of the backup data from one or more storage devices storing the backup data to the archive storage; and after completing the server-free copy, thawing the backup data so that the backup data may again be altered*. The Examiner states that Tamer discloses copying data to tertiary storage while backup data is frozen. This is incorrect. Tamer discloses copying primary data to tertiary storage while a mirror of the primary data is split. The Examiner has mischaracterized the teachings of the reference. The Examiner again asserts that Aultman discloses archiving using a server-free copy in paragraphs 101, 60, and 61. However, as discussed above, Aultman describes backups of primary data, not archiving of backup data. The Examiner also asserts that Tamer discloses thawing backup data so that the backup data may again be altered, in column 2, lines 24-28. As discussed above, this citation in Tamer describes splitting a mirror of primary data in order to perform a backup of the primary data, after which the mirrored disks are re-synchronized. Tamer clearly does not teach freezing and thawing backup data, as recited in Applicant's claim 7. The Examiner has mischaracterized the teachings of both Aultman and Tamer.

Finally, in the rejection of claim 7 the Examiner has provided no motivation to combine the teachings of Aultman and Tamer. Therefore, the Examiner has failed to state a *prima facie* rejection. The Examiner does briefly address the combination of Aultman and Tamer in the rejection of claim 5; however, this is in regard to the features of claim 5, not claim 7. The motivation to combine must be in regard to the specific combination of features. The Examiner has not provided any motivation whatsoever to modify Aultman according to Tamer to result in the specific combination of features recited in claim 7. Furthermore, as explained above, even if the teachings of Aultman and Tamer were combined, it would not result in the specific combination of features recited in claim 7. Finally, the reason stated by the Examiner in regard to claim 5 is completely irrelevant in regard to the features of both claim 5 and claim 7. The Examiner states that it would be obvious to combine the references to "allow for exact mirroring of

the primary server in the backup server.” However, modifying Aultman to allow exact mirroring of the primary server in the backup server would in no way result in the features recited in claim 7. The reason provided by the Examiner has no relevance to the claimed invention. **The Examiner has yet to address any of the § 103 arguments presented by Applicant.**

For at least the reasons above, the rejection of claim 7 is not supported by the cited art and removal thereof is respectfully requested.

Claim 13 includes limitations similar to claim 7, and so the arguments presented above apply similarly to this claim, as well.

Applicant also asserts that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the rejection has been shown to be unsupported for the independent claims, a further discussion of the dependent claims is not necessary at this time.

CONCLUSION

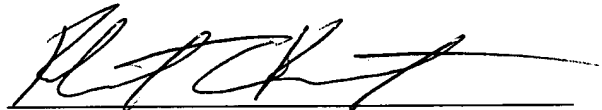
Applicants submit the application is in condition for allowance, and prompt notice to that effect is respectfully requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5760-16500/RCK.

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☐ Petition for Extension of Time
- ☐ Notice of Change of Address
- ☐ Other:

Respectfully submitted,



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